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# AGRICULTURAL LIBRARIES INFORMATION NOTES

National  
Agricultural  
Library

U.S. Department of  
Agriculture  
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## Presenting Our New Logo

The National Agricultural Library (NAL) is pleased to introduce its official logo — the first since the Library was founded in 1862.

The new logo is a bold and dramatic representation of the NAL in the information age.

It will serve as the Library's trademark signifying dynamic leadership in the collection and dissemination of agricultural information.

The design of the logo is a composite of several elements which combine to form a striking interpretation of the acronym N-A-L. Interconnecting lines symbolize the electronic transmission of information. The basic geometric shapes suggest the building blocks of knowledge found in books.

Remarking on the logo, Director Joseph

Howard said, "as NAL moves into the 21st century, the logo will reflect our commitment to the continued exploration of new

relationships between books and technology for the delivery of state-of-the-art information services to the nation and the world."

The adoption of the logo follows several months of meetings between members of the NAL

Marketing Committee, the Education and Information Staff, and the USDA Design Division.

In the coming months the logo will be incorporated into publication design work, promotional items, and letterhead, etc. For further information contact the Education and Information Staff, Room 203, (301) 344-3937.



RECORDS

NOV 19 1986

U.S. DEPARTMENT OF AGRICULTURE  
NATIONAL AGRICULTURAL LIBRARY

**"GRIN" AND SHARE IT!**  
by  
**Jean Larson**  
**Biotechnology Information**  
**Center Coordinator, NAL**

In a 1976-77 study of the National Plant Germplasm System (NPGS), it was stated: "An information system exists within the plant genetics resources community of the United States, but this system lacks the organizational communication techniques, trained personnel, and funding to satisfy the requirement of the National Plant Germplasm System community." To grapple with this problem, the Agricultural Research Service (ARS-USDA) has invested much time, effort, and resources and gained the cooperation of many people from the Federal, State, and private levels in developing the GRIN (Germplasm Resources Information Network) database system. The system is being developed and maintained by the Plant Genetics and Germplasm Institute's database management unit at the Beltsville Agricultural Research Center.

The preservation and maintenance of the germplasm of important world crops has surfaced as a global issue in the last few years. It is now recognized that genetic diversity is a very valuable resource in producing new varieties of crop plants that will withstand various environmental stresses as well as stress imposed by pests and disease causing organisms. The genetic engineering techniques currently available to the plant breeder will allow greater utilization of existing germplasm stocks.

Due to the increased interest in the potential value and usefulness of NPGS stocks, it became necessary to seriously consider developing a centrally located system such as the GRIN database.

One important advantage of developing such a system is the standardization of descriptive terminology for various elements including: growth and

morphological characteristics, environmental growth conditions, and measurements. This standardization of reporting data improves the clarity of the (accession) passport data and eases information retrieval and inventory control. The database also allows for direct access to information about plant material by plant breeders and researchers in both the private and public sectors on a semi-global basis.

The NPGS of which the GRIN database is an integral part, has its origins in the last century. As early as 1819, U.S. diplomatic personnel were asked to send useful plants back to the United States. The present structure gradually developed as more and more plant material stocks needed to be inventoried and maintained.



**Seeds such as those of the melon-type egusi (*Citrullus* sp.) fruit are being preserved in the National Plant Germplasm System. (ARS photo)**

The current NPGS has several goals. These include the maintenance of landraces and unimproved germplasm on a continuing and long-term basis; the collection of potentially important germplasm from domestic and foreign sites; and the broadening of the genetic diversity of crop plants to allow maximum



production in many environments. At this time, the system includes more than 450,000 samples with additions being made at the rate of 7,000-15,000 per year. For the accessions to be of the most value to the plant breeding community, information about their specific traits is essential. Authorities for all the major crops are developing standardized vocabularies describing morphologic and growth characteristics and disease susceptibility parameters. At the same time, undefined accessions are gradually being evaluated and described with the standardized terminology.

How is the GRIN database structured and how is it accessed? According to database manager Jim Mowder, GRIN has three important functions. First, it serves as a central repository for valuable germplasm information that is accessible by the entire research community. Second, it is a means for the Crop Advisory Committee to begin standardization of crop descriptors. And third, it provides a mechanism for each of the Regional Plant Introduction Stations and other sites to handle daily seed requests.



**ARS programmer analyst, John Belt, instructs a botanist on how to access GRIN. (ARS photo)**

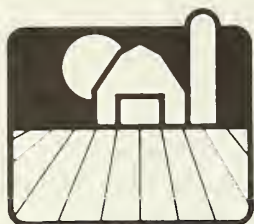
The database is generated from the input of several authorized locations. It is a menu-driven system that is stored in a Prime computer located in the NAL. In addition to inhouse use, portions of the database are available to non-USDA users. A logon ID and password will be given to qualified users such as libraries and research institutions upon request. Access is through telecommunications networks such as TELENET and WATS. A training manual and instructions are also available. Because of the importance of the information and the fact that the germplasm is a worldwide resource from worldwide sources, access to the database is free of any charge other than the telecommunications costs.

The GRIN record has nine general searchable areas that include: taxonomy, passport (accession) data, cooperators name or institutions, standards (includes taxonomic names, country names, etc.), inventory control information for each accession, order processing, study information, relevant bibliographic citations, descriptor (standardized terms and codes describing evaluation data for a species), and observation (data resulting from trial plantings--environmental locations are available for this data). The fields that may be of most interest to researchers will most likely be genus and species, cultivar, accession information, country or origin, and important traits.

At the present time, the NAL is exploring the possibility of cooperating with the GRIN database managers on a way to tag articles that have illustrations of nucleotide sequences of plant genes. Several terms are being discussed for addition by NAL's indexing staff as they index bibliographic materials for the AGRICOLA database. The addition of such "gene library" information to the GRIN database will expand its usefulness to the research community as well as reduce the demands on USDA staff resources. More definite information about the availability of this type of information on GRIN should be forthcoming in the spring of 1987.

For more information about GRIN contact Jim Mowder, Room 130, Bldg. 001, Beltsville Agricultural Research Center, Beltsville, MD 20705, (301) 344-3318.





## NEWS NOTES

### NAL AWARDS ILS CONTRACT

An integrated library system (ILS) incorporating the latest computer technology will be installed at NAL during the next 2 years under a half-million dollar contract recently awarded to Virginia Tech Library Systems, Inc. of Blacksburg, Virginia. The system will be used to manage NAL's 1.8 million volumes.


"By eliminating our current fragmented, multiple computer operations, the new system should result in significant savings in time and money," NAL director Joseph H. Howard said. "The Library patron will gain greater ease of access to our collection including more timely delivery of materials and direct electronic access to bibliographic records through our online catalog."

The decision to purchase a turnkey system followed the recommendation of the Interagency Panel for the Assessment of the National Agricultural Library which stated: "NAL should purchase existing state-of-the-art library and information systems to support (its current and future activities)...rather than independently design, develop, and implement new systems." This contract award is the culmination of 2 years of effort in assessing the NAL's needs, evaluating proposals, and testing potential systems.

The integrated library system includes both hardware and software components, fully integrating the many library functions under one computer system. It includes modules to perform online reference and catalog retrieval, online cataloging and catalog maintenance, serials control, online acquisitions

processing, online lending control, and preservation control. In addition, the NAL has contracted for the development of a module to support its indexing responsibilities.

The ILS will be run on a Hewlett Packard 3000 Series 70 mini-computer with eight megabytes of main memory. The system will have over two giga-bytes of direct access storage and support 64 terminals.

For more information contact Pamela Andre, Chief, Information Systems Division, NAL, 5th Floor, (301) 344-3813. 

### PRC VISIT PROMOTES INFORMATION EXCHANGE

West met East recently as Director Joe Howard and Sarah Thomas, Chief, Technical Services, traveled to the People's Republic of China for a 2-week study and lecture tour. An invitation from the library of the Chinese Academy of Agricultural Sciences (CAAS) prompted the trip, which was also sponsored, in part, by the USDA Office of International Cooperation and Development. Upon their arrival in Beijing, the group was met by Dr. Liu Yuxiang, Deputy Director of the CAAS library and Pan Shuchun, Exchange Librarian, who had previously spent 5 months at NAL as an intern. Ms. Pan served as guide and interpreter throughout the journey through China.



Joe Howard and Sarah Thomas visit Tea Research Institute in Hangzhou.



After a brief introduction to Beijing, in which the Forbidden City of the Emperor and the Summer Palace were visited, the group flew to Nanjing, where they visited the Nanjing Agricultural Library. They next spent 3 days as the guests of the Tea Research Institute in Hangzhou, visiting the Institute's tea plantation, sampling various tea products, including a newly marketed beverage, tea-cola, and touring local historical landmarks. Returning to Beijing by train, a journey lasting almost 30 hours, they were able to see vast stretches of the Chinese landscape, cross the wide Yangtze River, watch land cultivation with the aid of water buffalo, and enjoy many other such picturesque sights.




**Sightseeing at the Great Wall are from left Pan Shuchun, CAAS; Sarah Thomas; Dr. Liu Yuxiang, CAAS; Dr. Liu's daughter; and Joe Howard.**

Upon their return to Beijing, Mr. Howard and Dr. Thomas attended 4 days of seminars for Chinese librarians and information scientists held at the CAAS. Mr. Howard lectured on NAL's projects and accomplishments,

particularly in the area of technology, and Dr. Thomas delivered papers on centralized cataloging in America, new technologies in public services, and AGRICOLA. They presented a slide show on NAL, showed videotapes of the Library and optical technology at OCLC, and demonstrated the aquaculture expert/advisory system developed this past year at NAL. The Chinese librarians displayed much enthusiasm for and interest in CD-ROM and other automated technologies.

In addition to the lectures, Mr. Howard and Dr. Thomas met with senior staff from the CAAS library and the CAAS Information Services Division. They discussed plans for CAAS personnel to submit indexing of important Chinese agricultural literature to AGRIS, as well as cooperation in the areas of collection development and acquisition of materials, document delivery, and staff exchange. In addition, many of the Chinese institutions attending the seminars expressed interest in establishing or improving publications exchange partnerships with NAL.

While in Beijing Mr. Howard and Dr. Thomas also visited the National Library of China and the Beijing Agricultural University Library, where they noted the use of the MARC bibliographic formats and learned of several automation projects the Chinese are undertaking. Following these studious endeavors, the trip culminated in an exhilarating climb of the Great Wall.

-- Sarah Thomas, Chief  
Technical Services 

An updated List of Key NAL Personnel and Services (September 1, 1986) is available from the Education and Information Staff, Rm. 203, NAL, Beltsville, MD 20705.



## STAFF UPDATE

### KAREN PERKINS HEADS CIRCULATION UNIT



**Karen Perkins**

There's a new librarian on board at NAL and as a Library user you will soon be directly or indirectly interacting with Karen Perkins, head of our Circulation Unit, Lending Branch.

Karen was born in Austria, received her B.A. from the University of Maine and her M.S.L.S. from Catholic University. She has worked with government libraries in West Germany and public libraries in Michigan and Oklahoma. As former head of the Circulation Department of the Lawton Public Library in Oklahoma, she brings a wealth of experience in circulation, interlibrary loan, audio-visuals, and reference as well as management and supervision.

One of Karen's responsibilities will be to coordinate program operations of the new Software Demonstration Center. The Center will provide microcomputer users firsthand access to various types of hardware and software.

Needlework, snow skiing, and tole painting are among her hobbies and interests.



## INFORMATION CENTERS...

### ...WHAT'S NEW

### AQUACULTURE

#### ...Joint Subcommittee on Aquaculture

The Joint Subcommittee on Aquaculture (JSA) was reauthorized under the National Aquaculture Improvement Act in the 1985 Farm Bill. Selected members represent over 16 different Federal agencies. USDA serves as the lead Federal agency with respect to coordination and dissemination of aquaculture information.

The first meeting was held May 16, 1986, with the first action being the creation of an Aquaculture Information Task Force. The Task Force will address the information needs of the aquaculture community and work closely with the Aquaculture Information Center at NAL. Two additional JSA meetings have been held since the May meeting. Mr. Bille Hougart, JSA Chairman, has been instrumental in initiating important activities of the JSA. One such activity involves the development of five regional aquaculture centers throughout the nation as a means to improve research and development projects in aquaculture.

#### ...JSA Task Force

Some of the items currently being addressed by the JSA Task Force are: development of an aquaculture expert system and testing its feasibility for full-scale use; creation of a laser disc containing full-text aquaculture publications; creation of a directory describing Federal aquaculture programs; and revision of a resource publication on aquaculture.

For more information about JSA Task Force activities, contact the chairperson, Debbie Hanfman, at (301) 344-3704, NAL, Aquaculture Information Center, Room 111.





## NEWS FROM THE FIELD

### THE INTERNATIONAL AGRICULTURE SYSTEMS COLLECTION AT UMC

by

June L. DeWeese

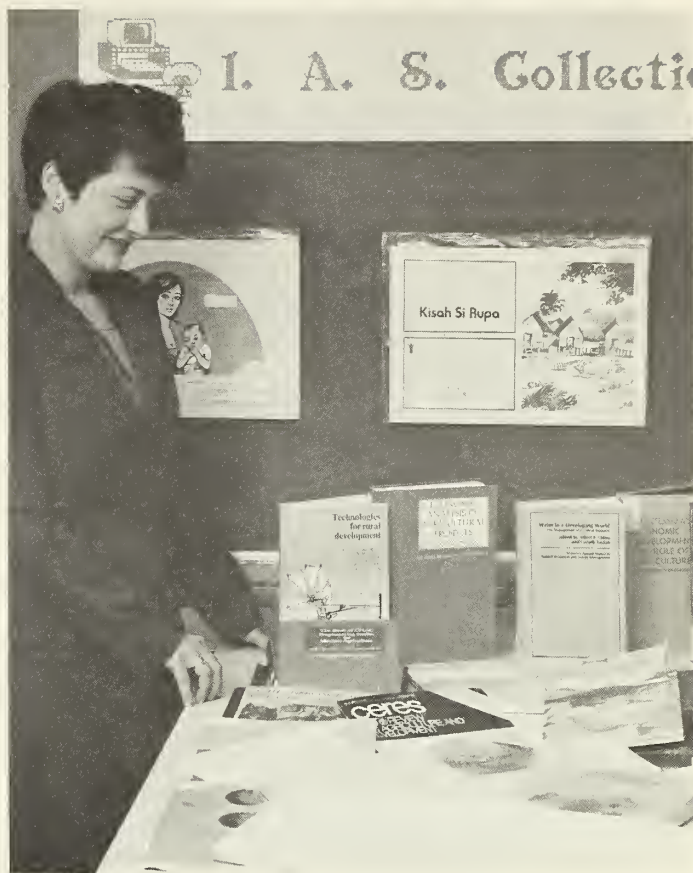
Social Science Librarian

University of Missouri-Columbia

The University of Missouri-Columbia Libraries has completed the first phase of the automation of the International Agricultural Systems collection.

Formerly known as the Small Farms Study Library collection, it was located in and administered by the Department of Agricultural Economics. In January 1985, the collection was moved to the Ellis Library under the administrative guidance of the social science librarian. In October 1985, a computerized database was begun and the name of the collection was changed. The goal of the collection is to store and disseminate information on international agriculture in general, and specifically on small farming systems in developing countries. Two important sub-objectives of this project are to develop a computerized database of the bibliographic holdings of the Library and to identify those "fugitive" materials in other locations which are of interest to farming systems researchers both on the UMC campus and on-site in foreign countries.

Resources are also collected from fields relevant to agriculture such as communications, economics, engineering, health and nutrition, rural sociology, soil science, and technology. There is also a strong emphasis on materials pertinent to women in developing countries. A printout file is maintained on several current and active search topics.




**Social sciences librarian June DeWeese directs automation of the UMC International Agricultural Systems Collection. (Photo courtesy Academic Support Center, UMC)**

The current database was created using the REVELATION database applications software on an IBM-AT microcomputer. As of September 15, the system contains over 3,700 records and more than 22,000 keywords. The indexing capabilities of the system permits one to search for any combination of characters from any field or from any combination of fields. The structure of the database system permits all of the data entry and searching tasks to be completely menu-driven. It also supports case-sensitive help screens, a number of which have been incorporated into this application. Each record, or citation, is restricted in length to 64k bytes (about 32 pages); the number of records in the database is limited only by the disk space available. The REVELATION database package can transfer records or other data in either dBASE II, ASCII, Lotus 1-2-3, or WordPerfect formats.

Phase II of the database comprises two major parts. First, we are indexing selected U.S. government publications, particularly those published by the Departments of Agriculture and Commerce and others which come to our attention through searches by country name and subjects of interest in various sources.

Secondly, we are indexing monographs from the UMC Libraries' collections. This indexing is based on chapter titles and from monograph indices where available. It is anticipated that Phase II will continue indefinitely. We also will add other publications as they are received and will revise and maintain the database as needed. The recent acquisition and use of file-optimizing software has reduced the access time for data searches by 25-33 percent.

UMC will lend or photocopy items from the collection through normal interlibrary loan channels. We encourage the use of these materials either on campus or through lending. Database searches are available free-of-charge to interested requesters.

For further information about the collection, contact the author at 2D32 Ellis Library, University of Missouri-Columbia, Columbia, MO 65201, (314) 882-6661. 

#### REMINDER

Federal Interagency Field Librarians' Workshop (FIFL)

November 30-December 5, 1986  
Omni Shoreham Hotel  
Washington, D.C.

**NAL/FIELD/LAND-GRANT  
LIBRARIANS' MEETING  
December 1-2**

For more information contact:  
Dr. Leslie Kulp, NAL  
(301) 344-1562

#### 1987 AGRICOLA/CRIS TRAINING SESSIONS SET


NAL will sponsor a training course on its master database, AGRICOLA (Agricultural Online Access) and on CRIS (Current Research Information System) in Room 1400, NAL Building, Beltsville, MD, on January 26-29, March 9-12, May 4-7, June 22-25, and September 14-17. This basic course is for people who have little or no previous experience in online searching. DIALOG system protocols will be used during the training sessions.

Primary emphasis will be on search strategy construction and hands-on experience at terminals or microcomputers. The Library will furnish all course materials.

The CRIS database will be featured during the fourth day. CRIS/USDA provides online access to project information on agricultural research.

The course is free to employees of USDA, land-grant universities and colleges, and employees of other Federal, State, and local agencies. A tuition fee of \$225 for all other participants is required. Checks should be made payable to "National Agricultural Library." Registrants are responsible for their own lodging, meals, and transportation.

To register submit requests (and fee if applicable) on letterhead stationery at least 10 days before course date. Mail to:

Farming & Forestry Reference Branch  
National Agricultural Library  
Room 111, Attn: Charles N. Rebee  
Beltsville, MD 20705  
(301) 344-3704 







## **NEW PUBLICATIONS OF NOTE**

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**ACRONYMS AND ABBREVIATIONS IN LIBRARY AND INFORMATION WORK, THIRD EDITION.** A.C. Montgomery (comp.). June 1986. Lists more than 6,000 acronyms and abbreviations found in English-language library and information science literature. 224 p. \$10.00. ALA Order Code L946-X. Order from American Library Association, Publishing Services, 50 East Huron St., Chicago, IL 60611. Tel.: (312) 944-6780.

**\*\*ALTERNATIVES FOR DAIRY MANURE MANAGEMENT.** Washington, D.C., U.S. Department of Agriculture, Economic Research Service. July 1986. 42 p. (Report No. AGES-860-422). \$9.95. PB86-212339/XAB.

**CATALOGING SPECIAL MATERIALS: CRITIQUES AND INNOVATIONS.** 1986. Sanford Berman, ed. Explores cataloging problems in the areas of computer software, Spanish-language works, films and videotapes, government documents, etc. 160 p. \$332.50. Order from The Oryx Press, 2214 North Central at Encanto, Phoenix, AZ 85004-1483. Tel.: (800) 457-ORYX.

**CD-ROM: THE NEW PAPYRUS.** March 1986. S. Lambert and S. Ropiequet, ed. Perceptions and recommendations on the technology and market future of compact disc/read-only memory from computer and disc experts. 620 p. \$21.95. Order from The Videodisc Monitor, P.O. Box 26, Falls Church, VA 22046-9990. Tel.: (703) 241-1799.

**\*DIFFERING EFFECTS OF FARM COMMODITY PROGRAMS ON LAND RETURNS AND LAND VALUE.** Washington, D.C., U.S. Department of Agriculture, Economic Research Service. 1985. 8 p. (Agricultural Economic Report No. 544). \$1.00. S/N 001-019-0042-7.

**DIRECTORY OF MICROCOMPUTER SOFTWARE FOR LIBRARIES.** 1986. R. Walton and N. Taylor. Detailed information on some 250 programs together with criteria librarians can use for selecting and evaluating microcomputer programs. 576 p. \$37.00. Order from The Oryx Press, 2214 North Central at Encanto, Phoenix, AZ 85004-1483. Tel.: (800) 457-ORYX.

**\*\*FARM OPERATING AND FINANCIAL CHARACTERISTICS, JANUARY 1985.** Washington, D.C., U.S. Department of Agriculture, Economic Research Service. June 1986. 99 p. (Report No. AGES-860521). \$11.95. PB86-217700/XAB.

**\*FEDERAL GOVERNMENT TECHNOLOGY: ELECTRONIC RECORD SYSTEMS AND INDIVIDUAL PRIVACY.** Washington, D.C., U.S. Congress, Office of Technology Assessment. 1986. Addresses technological development, current and prospective Federal agency use of electronic record systems, interaction of technology and relevant public law, and possible policy actions including the amendment of existing laws and the establishment of new mechanisms to safeguard privacy. \$7.50. S/N 052-003-01038-1.

**FINAL REPORT OF THE NATIONAL AGRICULTURAL LIBRARY TELEFACSIMILE EVALUATION PROJECT.** September 1986. Beltsville, MD, U.S. Department of Agriculture, National Agricultural Library. Key findings of a 5-month investigation on the use of telefacsimile equipment for document delivery. 117 p. Free. Order from Jannette Shuford-Hall, Public Services Division, Room 100, National Agricultural Library, Beltsville, MD 20705.

**\*\*FLORIDA AND MEXICO COMPETITION FOR THE WINTER FRESH VEGETABLE MARKET.** Washington, D.C., U.S. Department of Agriculture, Economic Research Service. June 1986. 110 p. (Report No. USDA/AER-556). \$16.95. PB86-221421/XAB.

**\*\*FOOD AID AND THE AFRICAN FOOD CRISIS.** Washington, D.C., U.S. Department of Agriculture, Economic Research Service. June 1986. 113 p. (Report No. FAER-221). \$16.95. PB86-217767/XAB.



GLOBAL WORKSHOP ON ROOT AND TUBER CROPS PROTECTION. 1986. James H. Cook, ed. Proceedings of a regional workshop held in Cali, Colombia, September 13-16, 1983. 235 p. \$15.00. Order from Centro Internacional de Agricultura Tropical, Apartado Aereo 6713, Cali, Colombia.

\*LEXICON OF PEANUT FLAVOR DESCRIPTORS. Beltsville, MD, U.S. Department of Agriculture, Agricultural Research Service. July 1986. 9 p. (Report No. ARS-52). \$9.95. PB86-220670/XAB.

LIBRARY NETWORKS, 1986-87. 1986. Susan K. Martin. Examines the evolution of automated library networking, network governments and behavior, regional networks, nationwide programs, and trends for library networks. The characteristics of some 22 networks are discussed. 251 p. \$28.50. Order from Knowledge Industry Publications, Inc., 701 Westchester Ave., White Plains, NY 10604. Tel.: (914) 328-9157.

\*SPECIALTY GROCERY WHOLESALING: STRUCTURE AND PERFORMANCE. Washington, D.C., U.S. Department of Agriculture, Economic Research Service. 1986. 18 p. (Agricultural Economic Report No. 547). \$1.00. S/N 001-019-00435-5.

\*Order from Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Tel.: (202) 783-3238.

\*Order from National Technical Information Service, Identification Section, 5285 Port Royal Road, Springfield, VA 22161. Tel.: (703) 487-4780. All titles listed are available in microfiche for \$5.95 each.



## SERIAL GAPS

As part of the National Agricultural Library's collection maintenance activities and through patron requests, gaps in the national collection are identified. We appreciate your donation of these items to complete our collection. If you have questions regarding the program, call Susan Fugate, Leader, Gift and Exchange Program, (301) 344-2904.

Send items to:

National Agricultural Library  
Gift and Exchange Program  
Room 112G  
Beltsville, MD 20705

Biophysical Journal. Vol. 45, no. 3, Mar. 1984.

Cold Spring Harbor Symposia on Quantitative Biology; (Proceedings). Vol. 46, part 1, 1980.

Dissertation Abstracts International. A, The Humanities and Social Sciences. Vol. 43, no. 12, June 1983; Vol. 45, no. 1, July 1984; Vol. 45, nos. 4-8, Oct. 1984-Feb. 1985.

Dissertation Abstracts International. B, The Sciences and Engineering. Vol. 44, nos. 7-9, Jan.-Mar. 1984; Vol. 45, no. 2, Aug. 1984; Vol. 45, nos. 4-8, Oct. 1984-Feb. 1985.

Indian Journal of Animal Health. Vol. 12, no. 1, June 1973.

Journal of Environmental Science and Health: Part B, Pesticides, Food Contaminants, and Agricultural Wastes. Vol. 18, no. 6, 1983.

Proceedings. Animal Sciences. Indian Academy of Sciences. Vol. 93, nos. 1 & 6, 1984.

Proceedings. Section B, Natural Environment. The Royal Society of Edinburgh. Vol. 75, nos. 3-4, 1975.

Tropical Animal Health and Production. Vol. 5, 1973.



## SURPLUS PUBLICATIONS

The following publications are surplus to the needs of the National Agricultural Library's collection. They will be made available to any interested organization that regularly sends free publications to NAL. This includes most Federal, land-grant, and agricultural research institutions as well as many others. Foreign institutions will need to provide a U.S. mailing address or make other special arrangements with U.S. sources for shipment of material. Listed titles can be requested up to 6 weeks following announcement.

To request publications send a return addressed label to National Agricultural Library, USDA, Attn: Gift and and Exchange, Room 112, Beltsville, MD 20705, or call Susan Fugate, (301) 344-3732.

**NOTE: These publications are in Russian**

Advanced Industries of the Country. Moskva: Znanie, 1984.

An Analysis of the Development of Branches of Animal Husbandry. Moskva: Statistika, 1973.

Applying Litter Free Waste as Fertilizer. Moskva: Kolos, 1983.

Breeding and Selection of the Hazelnut and the Giant Filbert. Moskva: Lesna'i'a promyshlennost', 1965.

Coccinellidae of the Ukraine. Kiev: Izd-vo Akadeemii nauk Ukrainskoi SSR, 1954.

Complex Mechanization of Cotton Harvesting. Moskva: Vyssha'i'a shkola, 1982.

The Departure of Migrating Birds from Estonia from 1967 to 1976. Tartu: Eesti NSV Teadusta Akadeemia, Eesti Looduseuurijate Selts, 1978.

Ecological and Morphological Research in Early Ontogenesis of Vertebrates. Moskva: Nauka, 1984.

Economic Effectiveness of the Complex Solution to Agricultural Questions. Moskva: Ekonomika, 1968.

Economic Stimulation Funds on the State Farms. Moskva: Kolos, 1974.

Economy of Electrical Energy in Agriculture. Moskva: Kolos, 1983.

Effective Use of Equipment in Agriculture. Moskva: Ekonomika, 1970.

Effectiveness of Economic Methods of Management in Agriculture. Moskva: Ekonomika, 1968.

Effectiveness of Intensifying Production on Northern European State Farms. Moskva: Nauka, 1974.

Feed Stuff Yields and the Conversion of Protein in Animal Husbandry. Tallinn: Valgus, 1976.

Granulator. Moskva: Kolos, 1980.

Handbook on Agricultural Planning. Moskva: Kolos, 1974.

The Influence of Location on the Level of Management on Collective Farms. Moskva: Kolos, 1974.

Improving the Yield Quality of Agricultural Crops. Leningrad: Kolos, 1973.

More Feed--More Meat and Milk. Ashgabat: Turkmenovletneshir, 1960.

Organizing the Storage of Machinery on State and Collective Farms. Moskva: Kolos, 1974.

Problems of the Agrarian Policy of the Communist Party of the Soviet Union and the Virgin Land of Kazakhstan. Moskva: Politizdat, 1974.



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National Agricultural Library  
Beltsville, Maryland 20705

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November 13-14: NATIONAL FEED  
INGREDIENTS ASSOCIATION. Rosemont  
(Chicago), IL, Hyatt O'Hare. Contact:  
NFIA. One Corporate Place, Suite 375,  
West Des Moines, IA 50265.

November 20-31: NATIONAL CONFERENCE ON  
SUSTAINING AGRICULTURE NEAR CITIES.  
Boston, MA. Contact: William  
Lockeretz, School of Nutrition, Tufts  
University, Medford, MA 02155.

November 23-30: AGROTEC '86-III  
INTERNATIONAL FAIR FOR THE AGRICULTURE  
AND LIVESTOCK INDUSTRY. Lima, Peru.  
Contact: International Trade Fair,  
Apartado (P.O.B.): 4900, Lima, Peru.

November 27-December 2: AG CHINA '86.  
Guangzhou, People's Republic of China:  
Guangzhou Foreign Trade Center.  
Contact: Cahners Exposition Group,  
P.O. Box 70007, Washington, D.C.  
20088.

December 1-3: AMERICAN SOCIETY OF  
AGRONOMY, CROP SCIENCE SOCIETY OF  
AMERICA, SOIL SCIENCE SOCIETY OF AMERICA  
JOINT ANNUAL MEETING. New Orleans, LA,  
Rivergate Exhibition Center. USDA  
Exhibits: NAL. Contact: David M. Kral,  
ASA, 677 South Segoe Road, Madison, WI  
53711. Tel.: (608) 273-8080.

December 2-4: OUTLOOK '87 ANNUAL  
CONFERENCE. Washington, D.C., U.S.  
Department of Agriculture. Contact:  
Raymond Bridge, Director. Tel.: (202)  
447-5547. 

**AGRICULTURAL LIBRARIES INFORMATION NOTES**  
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librarians, extension workers, researchers,  
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and Information, Maria G. Pisa, Editor,  
Marilyn M. Jacobs, Assistant Editor, Dan  
Starr, Photographer. (Tel.: (301)  
344-3937.)